REMARKS

A. Objection to the Specification

In the Office Action mailed on January 25, 2005, the Specification was objected to for containing the title. Applicant traverses the objection in that there does not appear to be any prohibition for placing the title in the Specification either in the patent laws, the patent rules or the Manual of Patent Examination Procedure.

Despite the improperness of the objection, the title has been deleted from the Specification. Accordingly, the objection should be withdrawn.

B. 35 U.S.C. § 102

1. Claims 1-10, 16-21 and 28

Claims 1-10, 16-21 and 28 were rejected under 35 U.S.C. §102(b) as being anticipated by Hagl et al.[1] Applicants traverse this rejection for several reasons. Claim 1 recites a method for serial data transmission that includes "always transmitting further data, whose processing is not time-critical, immediately following said transmitting said up-to-date position data." In contrast, Hagl et al. does not disclose the recited timing scheme wherein further data is always transmitting further data whose processing is not time-critical immediately following the transmission of position data. The Office Action relies on a passage at column 2, lines 4-5 of Hagl et al. as anticipating the recited transmitting further data. However, the passage merely states:

[1] The Office Action incorrectly refers to U.S. Patent No. 5,687,103 as Bielski et al. when it should be referred to Hagl et al. since Reiner Hagl is the inventor first listed on the patent.

> can be adapted to these parameters. The position measuring device also has another memory region is used for decoding (Col. 2, ll. 4-5)

The passage is silent as to always transmitting non time-critical data immediately after transmission of position data. Since the remainder of Hagl et al. also fails to disclose such transmitting, claim 1 is not anticipated by Hagl et al. and so the rejection is improper and should be withdrawn.

The rejection of claim 3 is improper for the additional reason that Hagl et al. fails to disclose always transmitting further data whose processing is not critical "immediately following said position request command" as recited in the claim. It is noted that the Office Action has not identified where Hagl et al. discloses the recited transmitting. This is evidence that the rejection is improper and should be withdrawn.

The rejections of claims 8 and 10 are improper for the additional reason that Hagl et al. fails to disclose additional non-time-critical data that includes "additional data and additional data commands" as recited in the claim. The Office Action has relied on status commands and responses to commands as disclosing the recited non-time critical data. However, such commands are not transmitted together as recited in the claim. Accordingly, the rejection is improper and should be withdrawn.

Besides not being anticipated by Hagl et al., claim 1 is not rendered obvious by Hagl et al. in that there is no suggestion in Hagl et al. or the prior art to alter Hagl et al. to always transmit non time-critical data immediately after transmission of position data. Without such suggestion,

claim 1 and its dependent claims are patentable over Hagl et al.

2. Claims 29-35

Claims 29-35 were rejected under 35 U.S.C. §102(b) as being anticipated by Hagl et al. Claim 29 has been amended to clarify that the recited device "always causes transmission of further data, whose processing is not time-critical" (underline indicates amended subject matter) following transmission of up-to-date position data between the position measuring system and the processing unit. For reasons similar to those given in Section B.1, the rejection has been overcome and should be withdrawn.

Besides not being anticipated by Hagl et al., claim 29 is not rendered obvious by Hagl et al. In particular, there is no suggestion in Hagl et al. or the prior art to alter Hagl et al.'s device to always transmit non time-critical further data immediately after transmission of position data. Without such suggestion, claim 29 and its dependent claims are patentable over Hagl et al.

C. 35 U.S.C. §103

1. Hagl et al. and Kurten

Claims 11-15 were rejected under 35 U.S.C. §103 as being obvious in view of Hagl et al. and Kurten. Claims 11-15 depend directly or indirectly from claim 1. As mentioned above in Section B.1, Hagl et al. does not disclose nor suggest altering itself to always transmit non-time-critical data immediately after transmission of position data. Kurten does not cure the deficiencies of Hagl et al. in that Kurten does not suggest altering Hagl et al. so that Hagl et al. always transmits non-time-critical data immediately after transmission of position data. Without such suggestion, the rejection is improper and should be withdrawn.

Claims 11 and 12 are patentable for the additional reason that neither Hagl et al. nor

Kurten suggest altering Hagl et al. to immediately transmit after interrupting transmission of non-time-critical data a position data request command to the position measuring system in the place of the non-time-critical data, "whereupon said up-to-date position data are immediately transmitted from said position measuring system to said processing unit." It appears that the Office Action is relying on one or more of the following three passages of Hagl et al. as disclosing the recited transmitting:

> can be adapted to these parameters. The position measuring device also has another memory region is used for decoding (Col. 2, ll. 4-5).
>
> According to the invention, commands from the processing unit 400 to the position measuring device 100 are also transmitted across the data line 500. The commands are taken to a storage 800 of the position measuring device 100, which decodes the command and permits the position measuring device 100 to execute the particular command. This command, in the example, is a data word of three status bits S2, S1 and S0. To assure the transmission of status commands, each status bit is also sent inverted, so that a total of six status bits S2, S1, S0, S2, S1, S0 for one command are transmitted from the processing unit 400 to the position measuring device 100. If the position measuring device 100 recognizes a faulty status bit transfer, an error message is produced. The position measuring device 100 shall be known hereafter as the measuring system.
>
> ***
>
> 1. Status Command A
>
> If the data word A is sent from the processing unit 400 to the position measuring device 100 across the data line 500, this means that the measuring device 100 is instructed to send an absolute position measurement value to the processing unit 400. The transmission protocol for this is shown in FIGS. 3-6 and shall be described in detail later on. (Col. 3, ll. 40-54 and 58-64).

The above passages are silent as to immediately transmitting after interrupting transmission of

non-time-critical data a position data request command in the place of non-time critical data and immediately transmitting up-to-date position data from the position measuring system and the processing unit. Kurten does not cure the deficiencies of Hagl et al. since Kurten discloses only the possibility to interrupt a non-time-critical transmission and to complete it later. Since there is no suggestion in either Hagl et al. or Kurten to provide the claimed transmitting to Hagl et al., the rejection is improper and should be withdrawn.

Claims 14 and 15 are patentable for the additional reason that neither Hagl et al. nor Kurten suggest altering Hagl et al. to transmit after interrupting transmission of non-time-critical data up-to-date position data in the place of the non-time-critical data. It appears that the Office Action is relying on the same three passages of Hagl et al. presented above that were used to reject claims 11 and 12. The passages are silent as to transmitting after interrupting transmission of non-time-critical data up-to-date data in the place of non-time critical data. Kurten does not cure the deficiencies of Hagl et al. since Kurten discloses only the possibility to interrupt a non-time-critical transmission and to complete it later. Since there is no suggestion in either Hagl et al. or Kurten to provide the claimed transmitting to Hagl et al., the rejection is improper and should be withdrawn.

2. Hagl et al. and Lennartsson

Claims 22-24 and 26 were rejected under 35 U.S.C. §103 as being obvious in view of Hagl et al. and Lennartsson.[2] Claims 22-24 and 26 depend directly or indirectly from claim 1. As mentioned above in Section B.1, Hagl et al. does not disclose or suggest altering Hagl et al. to

[2] The Office Action incorrectly refers to U.S. Patent No. 5,371,859 as Kent, the first name of the inventor, instead of Lennartsson, the last name of the inventor.

always transmit non time-critical data immediately after transmission of position data. Lennartsson does not cure the deficiencies of Hagl et al. in that Lennartsson does not suggest altering Hagl et al. so that it always transmits non time-critical data immediately after transmission of position data.

The rejections of claims 24 and 26 are improper for the additional reason that neither Hagl et al. nor Lennartsson suggests altering Hagl et al. to use a first position request command for position control that causes transmission of up-to-date position data to be given highest priority and a second position request command for digitizing a workpiece contour that causes transmission of up-to-date position data to be given lower priority. The Office Action has conceded that Hagl et al. does not disclose such position request commands. The Office Action has relied on Lennartsson as solving the deficiencies of Hagl et al. While Lennartsson does disclose transmitting messages with a unique priority it does not disclose nor suggest the particular position request commands recited in claim 24. Since there is no motivation in Lennartsson to alter Hagl et al. to use the claimed position request commands, the rejection should be withdrawn.

3. Hagl et al., Kurten and Lennartsson

Claims 25 and 27 were rejected under 35 U.S.C. §103 as being obvious in view of Hagl et al., Kurten and Lennartsson. Claims 25 and 27 depend directly or indirectly from claim 1. As mentioned above in Section B.1, Hagl et al. does not disclose or suggest altering Hagl et al. to always transmit non time-critical data immediately after transmission of position data. Neither Kurten nor Lennartsson cure the deficiencies of Hagl et al. in that both do not suggest altering Hagl et al. to always transmit non time-critical data immediately after transmission of position data. Without such suggestion, the rejection is improper and should be withdrawn.

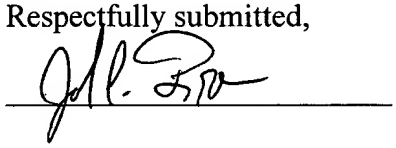
D. New Claims 36-55

New claims 36-55 are being presented to provide additional patent protection for methods and systems for serial data transmission between a position measuring system and a processing unit and so they are not being presented for reasons of patentability as defined in *Festo Corporation v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd*, 234 F.3d 558, 56 USPQ2d 1865 (Fed. Cir. 2000) (*en banc*), *overruled in part*, 535 U.S. 722 (2002).

CONCLUSION

In view of the arguments above, Applicants respectfully submit that all of the pending claims 1-55 are in condition for allowance and seek an early allowance thereof. If for any reason, the Examiner is unable to allow the application in the next Office Action and believes that an interview would be helpful to resolve any remaining issues, he is respectfully requested to contact the undersigned attorneys at (312) 321-4200.

Respectfully submitted,



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